



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Choi et al.
Serial No. : 10/053,535 ✓
Filed : January 15, 2002
Title : CARBON MONOXIDE AS A BIOMARKER AND THERAPEUTIC AGENT

Art Unit : 1616
Examiner : Frank I. Choi
Conf. No. : 7091

MAIL STOP AMENDMENT

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Applicants request consideration of the references listed on the attached two (2) PTO-1449 forms. Under 37 C.F.R. § 1.98 (a)(2)(ii), only copies of foreign patent documents and/or non-patent literature are enclosed. Copies of any listed U.S. patents or U.S. patent application publications can be provided upon request.

This statement is being filed before receipt of a first Office action on the merits.

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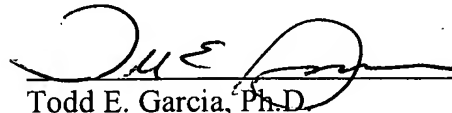
Attorney's Docket No.: 13681-003002

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Respectfully submitted,

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8/18/06



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U.S. Department of Commerce
Patent and Trademark Office

Attorney's Docket No.

13681-003002

Application No.

10/053,535

**Information Disclosure Statement
by Applicant**

(Use several sheets if necessary)

(37 CFR 1.98(b))

Applicant

Choi et al.

Filing Date

January 15, 2002

Group Art Unit

1616

U.S. Patent Documents

Examiner Initial	Desig. ID	Document Number	Publication Date	Patentee	Class	Subclass	Filing Date If Appropriate
	A1	6,203,991	03/20/01	Nabel et al.			
	A2						

Foreign Patent Documents or Published Foreign Patent Applications

Examiner Initial	Desig. ID	Document Number	Publication Date	Country or Patent Office	Class	Subclass	Translation	
							Yes	No
	B1							

Other Documents (include Author, Title, Date, and Place of Publication)

Examiner Initial	Desig. ID	Document
	C1	Appel et al., "The pig as a source of Cardiac xenografts," J. Card. Surg. 16:345-56 (2001).
	C2	Bach, "Heme oxygenase-1 as a protective gene," Wien. Klin. Wochenschr. 114(Suppl):4:1-3 (2002).
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	C7	Brouard et al., "Molecular mechanism underlying the anti-apoptotic effect of Heme oxygenase-1 derived carbon monoxide," Xenotransplantation, 8(Suppl 1): p22 (2001).
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	C9	Chapman and Choi, "Exhaled monoxides as a pulmonary function test: use of exhaled nitric oxide and carbon monoxide," Clin. Chest Med. 22:817-836 (2001).
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	C11	Choi and Otterbein, "Emerging role of carbon monoxide in physiologic and pathophysiologic states," Antioxid. Redox Signal. 4:227-228 (2002).
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Examiner Signature

Date Considered

EXAMINER: Initials citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Substitute Form PTO-1449 (Modified)	U.S. Department of Commerce Patent and Trademark Office	Attorney's Docket No. 13681-003002	Application No. 10/053,535
Information Disclosure Statement by Applicant (Use several sheets if necessary) (37 CFR §1.98(b))		Applicant Choi et al.	
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Other Documents (include Author, Title, Date, and Place of Publication)

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	C15	Dyck et al., "Carbon Monoxide (CO) Attenuates Lipopolysaccharide (LPS)-Induced Cytokine Expression of IL-6," Acta Haematologica 103(Suppl 1):64, (2000), Abstract.
	C16	Günther et al., "Carbon monoxide protects pancreatic beta-cells from apoptosis and improves islet function/survival after transplantation," Diabetes, 51(4):994-999, (2002).
	C17	Hartsfield and Choi, "Mitogen activated protein kinase (MAPK) is modulated by both endogenous and exogenous carbon monoxide," FASEB Journal 12:A187, 1088, (1998), Abstract.
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	C31	Otterbein et al., "Carbon Monoxide Modulates Lipolysaccaride (LPS)-Induced Inflammatory Responses <i>in vivo</i> and <i>in vitro</i> ," American Journal of Respiratory and Critical Care Medicine 159(3 Suppl.):A481 (1999).
	C32	Otterbein et al., "Carbon Monoxide, A Gaseous Molecule with Anti-Inflammatory Properties," pp. 133-156 in <i>Disease Markers in Exhaled Breath</i> , Marczin et al., eds., Marcel Dekker, Inc., New York, (2003).
	C33	Otterbein et al., "Carbon Monoxide Mediates Anti-Inflammatory Effects Via the P38 Mitogen Activated Protein Kinase Pathway," Acta Haematologica 103: 64, (2000), Abstract.

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	C34	Otterbein et al., "Carbon Monoxide Protects Against Oxidant-Induced Lung Injury in Mice Via the p38 Mitogen Activated Protein Kinase Pathway," <i>Acta Haematologica</i> 103:83, (2000), Abstract.
	C35	Otterbein et al., "Exogenous administration of heme oxygenase-1 by gene transfer provides protection against hyperoxia-induced lung injury," <i>J. Clin. Invest.</i> , 103(7):1047-1054, (1999).
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	C37	Otterbein et al., "Protective effects of heme oxygenase-1 in acute lung injury," <i>Chest</i> . 116:61S-63S, (1999).
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	C46	Sass et al., "Heme Oxygenase-1 Induction Prevents Apoptotic Liver Damage in Mice," <i>Naunyn-Schmiedeberg's Archives of Pharmacology</i> 367:R78, (2003).
	C47	Sethi et al., "Differential modulation by exogenous carbon monoxide of TNF-alpha stimulated mitogen-activated protein kinases in rat pulmonary artery endothelial cells," <i>Antioxid. Redox Signal.</i> , 4:241-8, (2002).
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	C49	Seyfried et al., "HO-1 induction protects mice from Immune-mediated liver injury," <i>Naunyn-Schmiedeberg's Archives of Pharmacology</i> 367:R80 (2003).
	C50	Slebos et al., "Heme oxygenase-1 and carbon monoxide in pulmonary medicine," <i>Respir Res.</i> 4(7):1-13, (2003).
	C51	Soares et al., "Heme oxygenase-1, a protective gene that prevents the rejection of transplanted organs," <i>Immunol. Rev.</i> 184:275-85, (2001).
	C52	Soares et al., "Modulation of endothelial cell apoptosis by heme oxygenase-1-derived carbon monoxide," <i>Antioxid. Redox Signal.</i> , 4:321-329, (2002).

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	C53	Soares et al., "Heme Oxygenase-1 and/or Carbon Monoxide can Promote Organ Graft Survival," in <i>Disease Markers in Exhaled Breath</i> , Marczin and Yacoub, eds., IOS Press, 346:267-273, (2002).
	C54	Song et al., "Carbon monoxide induces cytoprotection in rat orthotopic lung transplantation via anti-inflammatory and anti-apoptotic effects," <i>Am. J. Pathol.</i> , 163(1):231-242, (2003).
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	C62	Zuckerbraun and Billiar, "Heme oxygenase-1: a cellular Hercules" <i>Hepatology</i> , 37(4):742-744, (2003).
	C63	Zuckerbraun et al., "Carbon monoxide inhibits intestinal inducible nitric oxide synthase production and ameliorates intestinal inflammation in experimental NEC," <i>J. Amer. College of Surgeons</i> 197:S50 (2003)
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	A1						
	A2						
	A3						

Foreign Patent Documents or Published Foreign Patent Applications

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							Yes	No
	B1							
	B2							
	B1							
	B2							
	B3							

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	C1	Choi et al., "Therapeutic carbon monoxide may be a reality soon," Am. J. Respir. Crit. Care Med., 171(11):1318-1319 (2005)
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